

REPORT OF PROPOSED ACTIVITIES IN  
NON-AGREEMENT STATES, AREAS OF EXCLUSIVE  
FEDERAL JURISDICTION, OR OFFSHORE WATERS

(Please read the instructions before completing this form)

Estimated burden per response to comply with this mandatory collection request: 15 minutes. This notification is required so that NRC schedule inspection of the activities to ensure that they are conducted in accordance with requirements for protection of the public health and safety. Send comments regarding burden estimate to the Regulatory Management Branch (T-6 EB), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to: [1560-0018@nrc.gov](mailto:1560-0018@nrc.gov) and to the Desk Officer, Office of Information and Regulatory Affairs, NE08-10202, (3150-0013), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

1. NAME OF LICENSEE (Person or firm proposing to conduct the activities described below) <b>BARKER LEONAR ENGINEERING CONSULTANTS</b>		2. TYPE OF REPORT <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> REVISION <input type="checkbox"/> CLARIFICATION	
3. ADDRESS OF LICENSEE (Mailing address or other location where licensee may be located) <b>1300 CUMMINS ROAD STE201 DES MOINES, IA 50315</b>		4. LICENSEE CONTACT AND TITLE <b>Thomas E. Drane, PE Project Engineer</b>	
		5. TELEPHONE NUMBER (include Area Code) <b>515 256 8814</b>	6. FACSIMILE NUMBER (include Area Code) <b>515 256 015</b>
7. ACTIVITIES TO BE CONDUCTED UNDER THE GENERAL LICENSE GIVEN IN 10 CFR 150.20 <input type="checkbox"/> WELL LOGGING <input type="checkbox"/> LEAK TESTING AND/OR CALIBRATIONS <input type="checkbox"/> THERAPY/IRRADIATOR SERVICE <input checked="" type="checkbox"/> PORTABLE GAUGES <input type="checkbox"/> OTHER (Specify) <input type="checkbox"/> RADIOGRAPHY <input type="checkbox"/> REGISTERED AS USER OF PACKAGING (CERTIFICATES OF COMPLIANCE NUMBERS)			
8. CLIENT NAME, ADDRESS, CITY/COUNTY, STATE, ZIP CODE <b>MURPHY FARMS, LLC 40 Kurt Strauch 121 S. WASHINGTON NEVADA, MO 64772</b>		9. ACTUAL PHYSICAL ADDRESS OF WORK LOCATION (Street and Number or other location. Give as complete an address or directions as possible.) <b>DOYLESFORD PYRAMID IN BARTON COUNTY, MO NORTHWEST OF INTERSECTION OF HWY C &amp; HWY A</b>	
		10. CLIENT TELEPHONE NUMBER (include Area Code) <b>417 667 3397</b>	11. WORK LOCATION TELEPHONE NUMBER (include Area Code)
12. DATES SCHEDULED FROM <b>May 5, 2003</b> TO <b>May 9, 2003</b>		13. NUMBER OF WORK DAYS <b>5</b>	14. ADD <b></b>
		15. DELETE <b></b>	16. LOCATION REFERENCE NUMBER <b>000643</b>
17. LIST ADDITIONAL WORK SITES ON SEPARATE SHEET(S) TO INCLUDE ALL INFORMATION CONTAINED IN ITEMS 8-16 ABOVE.			
18. LIST RADIOACTIVE MATERIAL, WHICH WILL BE POSSESSED, USED, INSTALLED, SERVICED, OR TESTED (Include description of type and quantity of radioactive material, sealed sources, or devices to be used.) <b>8 mCi Cs-137 sealed gamma source 40 mCi Am-241-BE sealed alpha-neutron source Troxler 3430 Density Gauge</b>			
19. AGREEMENT STATE SPECIFIC LICENSE WHICH AUTHORIZES THE UNDERSIGNED TO CONDUCT ACTIVITIES WHICH ARE THE SAME, EXCEPT FOR LOCATION OF USE, AS SPECIFIED IN ITEM 8. ABOVE. (Four copies of the specific license must accompany the initial NRC Form 241.)		LICENSE NUMBER <b>0279-1-77-PG</b>	STATE <b>IA</b>
		EXPIRATION DATE <b>11-13-200</b>	
19. CERTIFICATION (MUST BE COMPLETED BY APPLICANT)			
I, THE UNDERSIGNED, HEREBY CERTIFY THAT:			
a. All information in this report is true and complete.			
b. I have read and understand the provision of the general license 10 CFR 150.20 reprinted on the instructions of this form; and I understand that I am required to comply with these provisions as to all byproduct, source, or special nuclear material which I possess and use in non-Agreement States or offshore waters under the general license for which this report is filed with the U.S. Nuclear Regulatory Commission.			
c. I understand that activities, including storage, conducted in non-Agreement States under general license 10 CFR 150.20 are limited to a total of 180 in calendar year. With the exception of work conducted in off-shore waters, which is authorized for an unlimited period of time in the calendar year.			
d. I understand that I may be inspected by NRC at the above listed work site locations and at the Licensee home office address for activities performed in non-Agreement States or offshore waters.			
e. I understand that conduct of any activities not described above, including conduct of activities on dates or locations different from those described above or without NRC authorization, may subject me to enforcement action, including civil or criminal penalties.			
CERTIFYING OFFICER - RSO or Management Representative (Name and Title) <b>Thomas E. Drane, RSO</b>		SIGNATURE <b>Thomas E. Drane</b>	DATE <b>4-15-03</b>
WARNING: False statements in this certificate may be subject to civil and/or criminal penalties. NRC regulations require that submissions to the NRC be complete and accurate in all material respects. 18 U.S.C. Section 1001 makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.			
FOR NRC USE ONLY	REVIEWING OFFICIAL (Typed/Printed Name and Title) <b>Doris E. Gonzalez/NMPA</b>	SIGNATURE <b>Doris E. Gonzalez</b>	DATE <b>4/29/03</b>
		TOTAL USAGE - DAYS TO DATE	



REC'D MAY 24 1999

THOMAS J. VILSACK  
GOVERNOR  
SALLY J. PEDERSON  
LT. GOVERNOR

DEPARTMENT OF PUBLIC HEALTH  
STEPHEN C. GLEASON, D.O., DIRECTOR

May 19, 1999

S. Michael Barker, President  
Barker, Lemar & Associates  
1300 Cummins Road, Suite 201  
Des Moines, Iowa 50315

License No.: 0279-1-77-PG

Dear Barker:

Enclosed is Amendment No. 01 to your Iowa License Number 0279-1-77-PG which is to resolve the conflict between License Condition 9 and License Condition 12. Changes are indicated in bold italics.

Please review the enclosed document carefully to be sure that you understand all conditions. You must conduct your program involving radioactive materials in accordance with the conditions of your Iowa license, representations made in your license application, and Iowa's Radiation Machines and Radioactive Materials Rules. In particular, note that you must:

1. Operate in accordance with Chapter 40 and other applicable rules of the Iowa Administrative Code.
2. Possess radioactive material only in the quantity and form indicated in your license.
3. Use radioactive material only for the purpose(s) indicated in your license.
4. Notify the Iowa Department of Public Health (IDPH) in writing of any change in mailing address.
5. Request and obtain appropriate amendment if you plan to change ownership of your organization, change locations of radioactive material, or make any other changes in your facility or program which are contrary to your license conditions or representations made in your license application and any supplemental correspondence with IDPH. Any amendment request should be accompanied by the appropriate fee specified in 641-38.8(2)"a".

LUCAS STATE OFFICE BUILDING / 321 E. 12TH ST. / DES MOINES, IOWA 50319-0075  
DEAF RELAY (HEARING OR SPEECH IMPAIRED) 1-800-735-2942 / INTERNET: [HTTP://IDPH.STATE.IA.US/](http://idph.state.ia.us/)

FAMILY & COMM. HEALTH  
515-281-3931  
FAX/515-242-6384

HEALTH PROTECTION  
515-281-5643  
FAX/515-281-4529

PLANNING & ADMINISTRATION  
515-281-5787  
FAX/515-281-4958

SUBSTANCE ABUSE & HEALTH PROMOTION  
515-281-3641  
FAX/515-281-4535

DIRECTOR'S OFFICE  
515-281-5604  
FAX/515/281-495

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Barker, S. Michael

Barker, Lemar & Associates

May 19, 1999

6. Submit a complete renewal application with proper fee or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of state law.
7. Request termination of your license if you plan to permanently discontinue activities involving radioactive material prior to your expiration date.

You will be periodically inspected by the IDPH. Failure to conduct your program in accordance with IDPH rules, license conditions, and representations in your license application will result in enforcement action against you in accordance with 136C.5 of Chapter 136C, the Iowa Code.

If you have any questions or require clarification of any of the above stated information, contact George F. Johns, Jr. at (515) 242-6280 or me.

Sincerely,



Joyce L. Spencer  
Radioactive Materials Program  
Bureau of Radiological Health  
(515) 281-6549

DKM/rum

cc: Thomas E. Draur, RSO

Enclosure

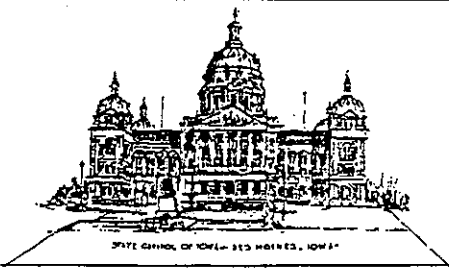
DAF



# MATERIALS LICENSE

Pursuant to Chapter 136C of the Iowa Code and 641-38 through 42 (136C) of the Iowa Administrative Code and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer radioactive materials designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the rules of the applicable chapter(s). This license is subject to all applicable rules and orders of the Iowa Department of Public Health including the Iowa Rules for Radiation Machines and Radioactive Materials [641-38 through 42] now or hereafter in effect, and to any conditions specified below.

Licensee	In accordance with the letter dated <b>May 10, 1999</b> , License No.: 0279-1-77-PG is <b>amended</b> to read as follows:	
1. Barker, Lemar & Associates, Inc.	3. <b>License Number:</b> 0279-1-77-PG <b>Amendment 01</b>	
2. 1300 Cummins Road, Suite 201 Des Moines, Iowa 50315	4. <b>Expiration Date:</b> November 13, 2003	
5. Byproduct, Source, Special Nuclear and/or Natural Occurring or Accelerator Produced Radio- active Material	6. Chemical and/or Physical Form	7. Maximum Amount that Licensee May Possess at any One Time Under This License
A. Cesium-137	A. Sealed Source(s) (Boart Longyear Company CPN Products model number CPN-131)	A. No single source to exceed 10 millicuries
B. Americium-241	B. Sealed Source(s) (Boart Longyear Company CPN Products model number CPN-131)	B. No single source to exceed 50 millicuries
C. Cesium-137	C. Sealed Source(s) (Humboldt Scientific, Inc. dwg. number 2200064)	C. No single source to exceed 11 millicuries
D. Americium-241	D. Sealed Source(s) (Humboldt Scientific, Inc. dwg. number 2200067)	D. No single source to exceed 44 millicuries



# MATERIALS LICENSE

Supplementary Sheet

License No.: 0279-1-77-PG  
**Amendment 01**

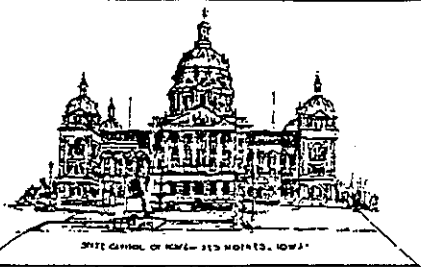
- |                  |  |   |
|------------------|--|---|
| E. Cesium-137    | E. Sealed Source(s)<br>(Amersham Corporation<br>model number CDCW556<br>or Isotopes Products Labs.<br>model number HEG-0058)       | E. No single source to<br>exceed 9 millicuries  |
| F. Americium-241 | F. Sealed Source(s)<br>(Amersham Corporation<br>model number AMNV.997<br>or Isotopes Products Labs.<br>model numbers 3021 or 3027) | F. No single source to<br>exceed 44 millicuries |

## 8. Authorized Use

- A. & B. To be used in a Boart Longyear Company CPN Product, Model MC Series to analyze moisture and density.
- C. & D. To be used in Humboldt Scientific, Inc., Model 5001 to analyze moisture and density.
- E. & F. To be used in a Troxler Electronics Laboratories, Inc., Model 3400 Series to analyze moisture and density.

## CONDITIONS

9. *Licensed material may be used or stored at the licensee's facilities located at 1300 Cummins Road, Suite 201, Des Moines, Iowa, and at temporary job sites of the licensee anywhere in the State of Iowa where the Iowa Department of Public Health maintains jurisdiction for regulating the use of licensed material.*
10. Licensed material shall only be used by, or under the supervision and in the physical presence of individuals who have successfully completed a manufacturer's training program for gauge users, have been instructed in the licensee's routine and emergency operating procedures and who have been designated by the Radiation Safety Officer. The licensee shall maintain records of individuals designed as users for five (5) years following the last use of licensed material.
11. Radiation Safety Officer is Thomas E. Draur.
12. When performing tests at temporary job sites, the authorized user shall not leave the nuclear gauge unattended. Upon completion of tests, the device shall be secured in the licensee's vehicle or a secure building to prevent loss, theft, or unauthorized use.



# MATERIALS LICENSE

Supplementary Sheet

License No.: 0279-1-77-PG  
**Amendment 01**

13. Any cleaning, maintenance, or repair of the gauge(s) that requires removal of the source rod shall be performed only by the manufacturer or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
14. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport, storage or when not under the direct surveillance of an authorized user.
15. The licensee is authorized to transport licensed material only in accordance with the provisions of 641-39.5(136C), "Packaging and Transportation of Radioactive Material."
16. The licensee shall conduct a physical inventory of all sealed sources received and possessed under the license at intervals not to exceed six (6) months and retain each inventory record for five (5) years. The inventory record shall contain the identity and estimated activity of each radionuclide, the model number of each source, and serial number if one has been assigned, the location of each source, date of the inventory, and the signature of the Radiation Safety Officer.
17. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The Iowa Department of Public Health's rules shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the rules.
  - A. Application dated August 31, 1998 (with attachments).
  - B. Letter dated October 8, 1998.
  - C. Letter dated November 25, 1998.
  - D. *Letter dated May 10, 1999.*

For the Iowa Department of Public Health

Date 5/19/99

By Joyce L. Spencer  
Joyce L. Spencer  
Radioactive Materials Program

Date May 19, 1999

Concurrence Donald A. Flater  
Donald A. Flater, Chief  
Bureau of Radiological Health

GFJ/DAF/rum

## NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION; NOTICES,  
INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

The IDPH has promulgated the Radiation Machines and Radioactive Materials Rules to set standards for your protection against radiation hazards and has established procedures for you, the employee, to report any suspected items of noncompliance in an Iowa licensed or registered facility.

IOWA DEPARTMENT OF PUBLIC HEALTH (IDPH)  
RADIOACTIVE MATERIALS PROGRAM  
BUREAU OF RADIOLOGICAL HEALTH (BRH)

Posting Requirement: Copies of this notice must be posted in a sufficient number of places in every establishment where employees are engaged in activities licensed or registered, pursuant to Iowa Administrative Code (IAC), Chapters 38 and 39, to permit employees working in or frequenting any portion of a restricted area to observe a copy on the way to or from their place of employment.

### YOUR EMPLOYER'S RESPONSIBILITY IS TO:

1. Apply the Radiation rules to work involving sources of radiation,
2. Post or otherwise make available to you a copy of the applicable IDPH rules and the operating procedures which apply to work you are engaged in, and explain their provisions to you, and
3. Post Notices of Violation involving radiological working conditions, proposed imposition of civil penalties and orders.

### YOUR RESPONSIBILITY AS A WORKER:

You should familiarize yourself with the provisions of the IDPH rules, Chapters 641-38 through 641-46, and the operating procedures which apply to the work in which you are engaged. You should observe these provisions for your own protection and protection of your co-workers.

### WHAT IS COVERED BY THESE RULES:

1. Limits on exposure to radiation in restricted and unrestricted areas.
2. Measures to be taken after accidental exposure.
3. Personnel monitoring, surveys, and equipment.
4. Caution signs, labels, and safety interlock equipment.
5. Exposure records and reports.
6. Options for workers regarding IDPH inspections.
7. Related matters.

### REPORTS ON YOUR RADIATION EXPOSURE HISTORY:

1. The Radiation Machines and Radioactive Materials Rules, requires that your employer give you a written annual report of any exposure you receive. Additionally, your employer is required to report to you in writing any time a report required by IAC 641-40 is made to IDPH. The limits for exposure to employees are set forth in IAC 641-40.15 (136C), 40.21 (136C), and 40.22 (136C) of the subrules. These sections specify limits of exposure to radiation and exposure to concentrations of radioactive material in air and the dose to an embryo/fetus.
2. If you work where personnel monitoring is required, your employer must:
  - (a) Give you a written report, upon termination of your employment, of your radiation exposures.
  - (b) Advise you annually of your exposure to radiation.

### INSPECTIONS:

All licensed or registered activities are subject to inspection by representatives of the IDPH. In addition, any worker who believes that there is a violation of the Iowa Radiation Machines and Radioactive Materials Rules or the terms of the employer's license or registration with regard to radiological working conditions in which the worker is engaged, may request an inspection by sending a notice of the alleged violation to the IDPH. The request must set forth the specific grounds for the notice and must be signed by the worker as the representative of the workers. During inspection, IDPH inspectors may confer privately with workers, and any worker may bring to the attention of the inspectors any past or present conditions which he/she believes contributed to or caused any violation as described above.

If you wish to contact the person responsible for radiation safety at your place of employment, you may call or write:

If you wish to contact the Iowa Department of Public Health, you may write or call:  
BUREAU OF RADIOLOGICAL HEALTH  
LUCAS STATE OFFICE BUILDING  
DES MOINES, IOWA 50319-0075  
515-281-3478 OR 515-281-7007